<< Workshop in IEEE Big Data 2025 >>

# Call For Papers: The Third Workshop on Large-scale Data Utilization in Economics of Information and Management Sciences: Theory, Computation, and Experiment

# << Title>>> The Third Workshop on Large-scale Data Utilization in Economics of Information and Management Sciences: Theory, Computation, and Experiment

#### <<Acronym>> EconManag

<**Workshop Style**>> hybrid or full online: We will decide the workshop style according to the preference of the majority of speakers, PC members, and supporting members.

# << Introduction to Workshop>>

The purpose of this workshop is to discuss how large-scale data are dealt with in economics and management sciences including marketing, finance, and accounting interdisciplinary among practitioners, engineers. We intend to clarify what kinds of effect those data have in our social institutions and share what are obstacles to promoting the utilization in those fields.

Since social or cultural systems are fundamentally different among different countries and regions, the data usage that successfully worked in a region does not necessarily work in the same way in other regions. The goal of this workshop is to explore the utilization of large-scale data in consideration of such social or cultural backgrounds across disciplines with practitioners, engineers, and researchers in information engineering.

As special topics, furthermore, we intend to discuss various methodologies of experiments for the interactions between computers and cognitive or emotional aspects of human behavior in digital marketing, accounting informatics, and personnel management as well as financial issues, and energy supply. Topics related to practical use of technologies on large-scale data are provided from the viewpoints of information engineering and computer science, and economics of information.

# << Research Topics>>

We call for papers written by anyone who are interested in the following topics related to this workshop.

# **Data-oriented Applications in Management:**

- Economics of Information and Organization
- Statistical Techniques and Algorithms
- Financial Risk and Security
- · Health Care and Medical Issues
- · Digital Marketing and Marketing Science
- Management Accounting and Informatics
- Dynamical Systems and Econophysics
- · Computational Social Science
- · Experimental Social Science

#### Case Studies:

- · Methods for Evaluation of Data Utilization
- · Curation and Management of Data
- Trust, Resilience, Privacy Issues
- Urban Planning and Transportation
- · Generation and Supply of Renewable Energy

# Methods of Experiments:

- · Behavioral Science and Modeling
- · Cognitive Science and Human Behavior

- · Human-Computer Interaction
- · Social Simulation and Numerical Studies
- · Lab and Field Experiments

#### Markets for Data Transaction:

- Process and Technologies for Data Exchange
- · Pricing Data and Data Platform
- · Data Acquisition and Sensors
- · Strategic Manipulation and Incentives
- · Fairness and Social Welfare

# Practical Use of Technologies:

- Text and Data Mining, Summarization, Topic Analysis, and Report Generation
- · Machine Learning for Social Data
- · Reinforcement Learning in Economics
- Retrieval/Recommender Systems
- · Big Data Optimization
- · Causality Estimation in Management
- · People Analytics and Personnel Issues
- Eye Tacking, Mouse Tracking, and EEG

#### << Important Dates>>

June 2 (Mon), 2025: PC sends out Call for Paper

June 30 (Mon), 2025: Workshop Paper Submission Starts (US-EST)

The Paper Submission Site will be open and displayed at the end of this CFP.

Oct 1 (Wed), 2025: Due date for full workshop paper submission (US-EST)

The due date was extended to Oct 21 (Tue), 2025 (as of Oct 6, 2025)

Nov 4 (Tue), 2025: Notification of paper acceptance to authors (US-EST)

Nov 23 (Sun), 2025: Camera-ready of accepted papers (US-EST)

Dec 8-11 (Mon-Thu), 2025: Workshop (CST)

#### << Format and Schedule>>

Half day (8 presentations)

| Time        | Contents                             |
|-------------|--------------------------------------|
| 8:50-9:00   | Opening Notes                        |
| 9:00-10:40  | 4 Presentations                      |
| 10:45-11:15 | Invited Talk: (still in negotiation) |
| 11:20-13:00 | 4 Presentations                      |

When more than 10 papers are accepted for the presentation, we will manage a one-day workshop. We are still negotiating some candidates for the keynote speech, those of whom are **big-data engineers** who are interested in the interaction with **economics of information** and **management sciences**.

# << Estimate of the audience size>>

20-25 participants

# << Program Committee: Tentative list>>

#### **Organizers**

Naoki Watanabe (Chair), Keio University, Japan: Economics of Information Kazuhito Ogawa (Co-Chair), Kansai University, Japan: Behavioral and Experimental Economics Hiroyasu Ando (Co-Chair), Tohoku University, Japan: Mathematical Modeling, IEEE member

# **PC Members** (Organizers are omitted in this list.)

Hiroki Sakaji, The University of Tokyo, Japan: Natural Language Processing, IEEE member Hiroyasu Matsushima, Shiga University, Japan: Multi-Agent Simulation, IEEE member Nariaki Nishino, The University of Tokyo, Japan: Service Engineering Zhen Li, Kansai University, Japan: Digital Marketing, Eye-Tracking Satoshi Takahashi, The University of Electro-Communications, Japan: Operations Research

#### **Supporting Members**

Yuya Akita, Kyoto University, Japan: Spoken Language Processing, IEEE member

Tetsuya Kawamura, Tezukayama University, Japan: Behavioral and Experimental Economics

Yoichiro Fujii, Meiji University, Japan: Actuarial Science

Yusuke Osaki, Waseda University, Japan: Finance

Yoichi Izunaga, Kyushu University, Japan: Operations Research

Takashi Yamada, Yamaguchi University, Japan: Social Simulation

Satoshi Taguchi, Doshisha University, Japan: Management Accounting

Rei Goto, Keio University, Japan: Medical and Health Economics

Taro Kumano, Yokohama National University, Japan: Matching Theory

Eizo Akiyama, The University of Tsukuba, Japan: Human and Computer Interaction

Morimitsu Kurino, Keio University, Japan: Matching Theory

Ken Ishibashi, Kansai University, Japan: Soft Computing, Eye-Tracking

Hajime Kobayashi, Kansai University, Game Theory, Experimental Economics

Yoshitaka Okano, Kansai University, Behavioral and Experimental Econimics

# <<Our past record>>

As part of the Big Data 2023 workshops, we successfully conducted the First Workshop on `` Large-scale Data Utilization in Economics of Information and Management Sciences: Theory, Computation, and Experiment in Sorrento, Italy. 10 distinguished papers were accepted after blind reviews and there were an audience of more than 25 participants in person. After reviewing 13 papers, we accepted 10 papers. (The invited speaker also submitted his paper to the workshop.)

The Second WS held jointly with Special Session on Understanding New Markets by Data Science, Social Science, and Economics in Washington D.C. USA. We had more than 30 participants in person. After reviewing 11 papers, we accepted 8 papers.

The website URL for WS 2024 and SS 2024 is as follows. https://tetsuwaka.net/UNMDSSSE2024/

# <<Organizers' Short Biographies>>

#### Naoki Watanabe (Ph.D.):

Naoki is a professor of Management Science at Keio Business School. He received his Ph.D. in Economics from The State University of New York at Stony Brook (August 2003). His major academic contribution is the application of Game Theory to patent licensing and information markets. He has published papers on subject experiments in which voting systems and trading mechanisms as well as theoretical research. In practical activities, he has been involved in the planning of personnel algorithms for Japanese manufacturers.

webpage: https://naoki-watanabe50.github.io/index.html/

# Kazuhito Ogawa (Ph.D.):

Kazuhito is a professor of Economics at the Faculty of Sociology at Kansai University. He received a doctorate degree in Economics from Kyoto University (March 2005). He has made academic contributions in the fields of Experimental and Behavioral Economics. In particular, he has published papers on experimental studies of cooperative and altruistic behavior. He has also conducted RCTs to explore how to improve our health. He is also the director of the Experimental Economics Laboratory at Kansai University.

■ webpage: https://researchmap.jp/read0095810?lang=en

#### Hiroyasu Ando (Ph.D.):

Hiroyasu is a professor of Mathematical Sciences for Open Innovation at Advanced Institute of Material Research at Tohoku University. He received a Ph.D. in Mathematical Informatics from the University of Tokyo (March 2007). His major areas of research include Mathematical Models of Complex Systems, Computations of Environmental Prediction, Data Analysis of IoT Vehicle Information. He is a member of IEEE. He engages in many research projects that promote industry-academia collaboration based on mathematical science.

■ webpage: https://sites.google.com/site/hiroyasuando/home/cv

# << The Paper Submission Site>>

https://wi-lab.com/cyberchair/2025/bigdata25/scripts/ws\_submit.php

Choose WS 12 in the list and click on the link highlighted in blue

#### <<Corresponding Organizer>>

Naoki Watanabe (Chair-in-Chief) Graduate School of Business Administration, Keio University 4-1-1 Hiyoshi, Kohoku, Yokohama, Kanagawa 223-8526, JAPAN

Phone: +81-045-564-2039

E-mail: naoki50<AT>keio.jp (replace <AT> with @)